

# **California's Groundwater**

## **Update 2013**

### **Statewide and Hydrologic Region**

#### **Content Review**

California Water Plan, Update 2013  
Groundwater Caucus  
April 12, 2013

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**California's Groundwater Update 2013**

**Statewide Content Review**

**Questions:**

1. Report Review:
  - a. What are your general thoughts about the outline and the contents of the report?
  - b. What would you add to the outline and content?
  - c. What would delete from the outline and content?
  - d. Please provide your specific suggestions to revise sections of the report.
2. Graphics Review:
  - a. Please provide your feedback and suggestions for improvement on the included
    - i. tables,
    - ii. charts, and
    - iii. maps.
  - b. What graphics (tables, charts, and maps) do not add value to the report and that you recommend deleting?
  - c. What other graphics (tables, charts, maps) would you recommend adding to improve the presentation of data and information?

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**Notes**

DRAFT

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**California's Groundwater Update 2013**

**Hydrologic Region Content Review**

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**California's Groundwater Update 2013**

**Statewide Outline**

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# **CALIFORNIA'S GROUNDWATER UPDATE 2013**

## **Statewide Outline**

### **1. INTRODUCTION**

- 1.1. Overview of Historical Groundwater Content in California Water Plan
- 1.2. Scope and Intent of the Groundwater Update 2013
- 1.3. Report Organization

### **2. FINDINGS**

### **3. RECOMMENDATIONS**

### **4. STATEWIDE GROUNDWATER UPDATE**

#### **4.1. Statewide Groundwater Supply and Development**

- Alluvial Aquifers
- Fractured-Rock Aquifers
- Well Infrastructure and Distribution
- Priority Basins

#### **4.2. Statewide Groundwater Use**

- (Report GW Use by HR, use type, and for alluvial vs. fractured aquifer regions)

#### **4.3. Statewide Groundwater Monitoring Efforts**

- Groundwater Level Monitoring
- Groundwater Quality Monitoring
- Land Subsidence Monitoring
- Remote Sensing/Satellite Monitoring
- Groundwater Modeling

#### **4.4. Statewide Aquifer Conditions**

- Groundwater Occurrence and Movement
  - Depth to Groundwater
  - Groundwater Elevations
  - Groundwater Level Trends
- Change in Groundwater Storage
  - Spring 2005 to Spring 2010 Change in Aquifer Storage Using Groundwater Level Data Analysis
  - Change in Aquifer Storage using GRACE Data Analysis
  - Change in Aquifer Storage using Groundwater Modeling
- Groundwater Quality
- Land Subsidence

#### **4.5. Statewide Groundwater Management**

- Groundwater Management Plans
  - Groundwater Management Plan Assessment
    - Basin Management Objectives
    - Mapping
    - Monitoring Protocols
    - Voluntary Components

Bulletin 118-2003 Suggested Components

ACWA/DWR Survey - Key Factors for Success

ACWA/DWR Survey - Key Factors Impeding Success

ACWA/DWR Survey - Groundwater Basin Sustainability

Groundwater Ordinances

Special Act Districts

Court Adjudications

Other Groundwater Management Planning Efforts

Integrated Regional Water Management Plans

Urban Water Management Plans

Agricultural Water Management Plans

**4.6. Statewide Case Studies of Groundwater Management**

**4.7. Statewide Conjunctive Management Assessment**

Conjunctive Management Survey

Project Initiation

Project Administration

Project Goals and Objectives

Capital Cost for Project Development

Annual Operating Costs of Projects

Project Capacity

Water Source

Put and Take Capacity

Project Constraints

**4.8. Statewide Sustainability Indicators**

**4.9. Statewide Groundwater Gap Analysis**

**4.10. References**



## **California's Groundwater Update 2013**

### **Hydrologic Region Outline**

## **CALIFORNIA's GROUNDWATER UPDATE 2013**

### **Hydrologic Region Outline**

#### **5.7 Tulare Lake Hydrologic Region Groundwater Update**

##### **5.7.1. Tulare Lake Hydrologic Region Groundwater Supply and Development**

- Alluvial Aquifers
- Fractured-Rock Aquifers
- Well Infrastructure and Distribution
- Priority Basins

##### **5.7.2. Tulare Lake Hydrologic Region Groundwater Use**

(Report GW Use by PA, use type, and for alluvial vs. fractured aquifer regions)

##### **5.7.3. Tulare Lake Hydrologic Region Groundwater Monitoring Efforts**

- Groundwater Level Monitoring
- Groundwater Quality Monitoring
- Land Subsidence Monitoring
- Remote Sensing/Satellite Monitoring
- Groundwater Modeling

##### **5.7.4. Tulare Lake Hydrologic Region Aquifer Conditions**

- Groundwater Occurrence and Movement
  - Depth to Groundwater
  - Groundwater Elevations
  - Groundwater Level Trends
- Change in Groundwater Storage
  - Spring 2005 to Spring 2010 Change in Aquifer Storage Using Groundwater Level Data Analysis
  - Change in Aquifer Storage using GRACE Data Analysis
  - Change in Aquifer Storage using Groundwater Modeling
- Groundwater Quality
- Land Subsidence

##### **5.7.5. Tulare Lake Hydrologic Region Groundwater Management**

- Groundwater Management Plans
  - Groundwater Management Plan Assessment
    - Basin Management Objectives
    - Mapping
    - Monitoring Protocols
    - Voluntary Components
    - Bulletin 118-2003 Suggested Components
    - ACWA/DWR Survey - Key Factors for Success
    - ACWA/DWR Survey - Key Factors Impeding Success
    - ACWA/DWR Survey - Groundwater Basin Sustainability
- Groundwater Ordinances
- Special Act Districts
- Court Adjudications

Other Groundwater Management Planning Efforts

Integrated Regional Water Management Plans

Urban Water Management Plans

Agricultural Water Management Plans

**5.7.6. Tulare Lake Hydrologic Region Case Studies of Groundwater Management**

**5.7.7. Tulare Lake Hydrologic Region Conjunctive Management Assessment**

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**5.7.8. Tulare Lake Hydrologic Region Sustainability Indicators**

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**5.7.10. References**